Chapter 15.20

DRILLING, OPERATION AND SAFETY REGULATIONS

(2491-7/81, 2532-2/82, 2708-12/84, 2759-5/85, 2861-10/86, 3037-5/90)

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<u>15.20.010 Derricks</u>. All derricks and portable masts used for drilling or reworking shall meet the standards and specifications of the American Petroleum Institute as they presently exist or may be amended hereafter.

All drilling, redrilling or reworking equipment shall be removed from the operation site within thirty (30) days following the completion of drilling, redrilling or reworking unless otherwise permitted by the Division of Oil and Gas. (2491-7/81)

15.20.020 Inspection. If a well is to be drilled or reworked within 150 feet of any occupied structure or street right-of-way, after the operating equipment is securely in place and prior to commencement of drilling, the operator shall notify the Fire Department for the purpose of

inspection. If an inspection is anticipated to be needed other than during normal working hours, the operator shall notify the Fire Department during a working day of the approximate time the operator will be ready for the inspection and shall not commence drilling until the Fire Department has made an inspection and given approval to commence. The Fire Department shall not approve the permit until all applicable provisions of the Huntington Beach Municipal Code have been met. The permit inspection shall be conducted within a reasonable time after receiving notice from the operator. (3037-5/90)

Upon completion of drilling or reworking operations, the operator shall notify the Fire Department, and the Fire Department shall make an inspection of said drill site to insure that provisions of this code and/or any condition of the drilling or reworking permit have been met. (2491-7/81, 3037-5/90)

<u>15.20.030 Well Setbacks</u>. It shall be unlawful to drill any well, the center of which at the surface of the ground is located within twenty-five (25) feet

- (a) From any property boundary line, or (3037-5/90)
- (b) From any recovery heater, oil storage tank, or source of ignition, or
- (c) Within one hundred (100) feet of any building not necessary to the operation of the well, or
- (d) Within three hundred (300) feet of any building used as a place of public assembly, institution or school, or
- (e) Within twenty-five (25) feet of any public street, road or highway or future street right-of-way. Setbacks shall conform to appropriate provisions of the Huntington Beach Ordinance Code.
- (f) The distances set out in subsections (c), (d) and (e) of this section may be reduced if additional fire protection is provided in accordance with the requirements imposed by the Fire Chief. (2491-7/81, 3037-5/90)

15.20.040 Lights. No person shall permit or allow any lights located on any oil operation site to be directed in such a manner so that they shine directly on adjacent property or developed property in the general vicinity of the oil operation site. (2491-7/81, 3037-5/90)

15.20.050 Identification Signs. An identification sign shall be prominently displayed and maintained in good condition on or in front of the perimeter fence next to the entrance of each well whether producing or not. Such sign shall be of durable material and unless otherwise required by the Division of Oil and Gas, shall have a surface area of four (4) square feet. The sign shall be lettered with minimum two (2) inch letters and contain the following:

- (a) Well name and number;
- (b) Name of operator;
- (c) Telephone number of two (2) persons responsible for said well who may be contacted in case of an emergency.

In the event the drill site or leasehold is fenced or walled, all entrances to said drill site or leasehold shall be posted with a like sign. In addition, a readily visible sign of durable material designating the well name and number shall be posted on or near each and every well within the drill site or leasehold. All freestanding signs and any sign larger than four (4) square feet in surface area shall be subject to the provisions of Huntington Beach Ordinance Code Article 961. (2491-7/81, 2759-5/85, 3037-5/90)

- **15.20.060 "No Smoking" Signs.** "No smoking" signs of a durable material shall be posted and maintained in all locations approved or designated by the Fire Chief. Sign lettering shall be four (4) inches in height and shall be red on a white background or white on a red background. (2491-7/81)
- 15.20.070 Waste Removal. Rotary mud, drill cutting, oil or liquid hydrocarbons and all other oil field wastes derived or resulting from, or connected with the drilling or reworking of any well shall be discharged into a portable steel tank. Waste materials shall be removed from the operation site within thirty (30) days from the completion of drilling, and shall be processed or disposed of according to all applicable City, County, State, and Federal Regulations. (2491-7/81, 3037-5/90)
- <u>15.20.080 Unlined Sumps</u>. Unlined sumps are prohibited. All such sumps shall be emptied, and all contaminated materials in and around the sump shall be excavated and processed or disposed of in accordance with all applicable City, County, State, and Federal regulations. (3037-5/90)
- 15.20.085 Lined Sumps. Primary lined sumps are prohibited, and all such sumps in use on the date of the adoption of this code section shall be removed according to a program and time schedule approved be the Fire Department. Secondary and tertiary lined sumps are permitted if they have a minimum construction of three (3) inch thick reinforced concrete walls and bottom, and are maintained in sound condition. Covers for these sumps shall be provided according to the following specifications: (3037-5/90)

Covers for secondary and tertiary sumps, and waste water separators shall meet all of the following requirements: (3037-5/90)

- (1) The cover material shall be impermeable to volatile organic compounds and free from holes, tears, or openings. (3037-5/90)
- (2) Drains on covers shall be provided with a slotted membrane fabric cover, or equivalent, over at least ninety (90%) percent of the open area. (3037-5/90)
- (3) Gauging or sampling devices on the compartment cover shall be covered. The latter cover shall be kept closed, with no visible gaps between the cover and the compartment, except when the sampling device is being used. (3037-5/90)
- (4) Hatches on covers shall be kept closed and free of gaps, except when required for inspection, maintenance or repair. (3037-5/90)
- (5) The perimeter of a cover, except for rigid floating cover, shall form a seal free of gaps with the foundation to which it is attached. (3037-5/90)

The provisions of this section shall not apply to pits or catch basins which exclusively receive, hold, or discharge rainwater, storm water runoff, or non-contact cooling water, or to lined pits, cellars, and basins which are normally empty but used for the containment of spilled or leaked fluids. (3037-5/90)

15.20.090 Private Roads And Drill Sites. Prior to the commencement of any drilling operations, all private roads used for access to the drill site and the drill site itself shall be surfaced with crushed rock, gravel or decomposed granite and maintained to prevent dust and mud. The requirements governing surfacing of private roads may be altered at the discretion of the Fire Chief after consideration of: distances from public streets and highways; distances from adjoining and nearby property owners whose surface rights are not leased by the operator; the purpose for which the property of such owners is or may be used; topographical features; nature of the soil; and exposure to wind. (2491-7/81, 3037-5/90)

15.20.100 Oil operations--Location--Time.

- (a) It shall be unlawful for any person to engage in any work whatsoever on any oil operation site within three hundred (300) feet of a dwelling unit, church, hospital, rest home, school, preschool, nursery, or other place of public assembly, except in the following situations:
 - (1) When such work consists of minimum maintenance or surveillance on the oil operation site and such work is conducted between the hours of 7 a.m. and 10 p.m.; or (3037-5/90)
 - (2) In case of emergency; or (3037-5/90)
 - (3) When so ordered by the Division of Oil and Gas; or (3037-5/90)
 - (4) Where the work being so conducted is soundproofed and such soundproofing is approved by the Fire Chief. (3037-5/90)
- (b) When operations are conducted beyond a distance of three hundred (300) feet from the aforementioned facilities, the Fire Chief may, in cases of disturbance such as excessive noise or vibration, require the oil operator to:
 - (1) Enclose the derrick and all drilling machinery used in connection with drilling of any well with fire resistant soundproofing material, which shall be maintained in a serviceable condition. No operations other than well logging shall be conducted outside the enclosure; or
 - (2) Enclose all drilling machinery used in connection with the drilling, redrilling, or reworking operations with fire resistant soundproofing material including the drilling mast or derrick, which shall be so enclosed on a minimum of three (3) sides to a height of twenty (20) feet, and conduct no operations between the hours of 10 p.m. and 7 a.m. with the exception of circulation of fluids and well logging. The Fire Chief may allow other phases of the operation to continue during the restricted hours if, in his opinion, the noise is minimal, or if required by the Division of Oil and Gas, or in the case of emergency. (2491-7/81)
- 15.20.110 Well Servicing Hours. It shall be unlawful to do any work between the hours of 10 p.m. and 7 a.m. in connection with pulling a well which is within two hundred (200) feet of any residential building, except where circulation in the well must be maintained, or the well would be endangered if the pulling work were not continued. (2491-7/81, 2532-2/82)
- **15.20.120 Wellhead Safety Equipment.** On all wells there shall be connected to the casing string a two (2) inch steel valve with a rated working pressure equal to that of the corresponding casing head for the purpose of bleeding off casing pressure and for hookup to kill the well in case of an emergency. Violations of this section shall constitute a misdemeanor punishable as set forth in Chapter 1.16 of the Huntington Beach Municipal Code. (2491-7/81, 3037-5/90)
- <u>15.20.130 Blowout Prevention</u>. In all cases protection shall be provided to prevent blowout during oil operations as required by and in conformance with the requirements of the Division of Oil and Gas and the safety orders for drilling and production of the State Division of Industrial Safety. Violations of this section shall constitute a misdemeanor punishable as set forth in Chapter 1.16 of the Huntington Beach Municipal Code. (2491-7/81, 3037-5/90)
- <u>15.20.135 Belt Guards Required</u>. Belt guards shall be required over all drive belts used on oil field equipment. Guarding shall be as required by Title 8 of the <u>California Administrative Code</u>, subchapter 14, section 6622. (2708-12/84, 3037-5/90)

15.20.140 Cellars. The following regulations shall apply to cellars:

- (a) Every cellar shall be constructed in accordance with the Huntington Beach Building Code and with the requirements as they now exist, or are hereafter amended, of the California Division of Industrial Safety;
- (b) Except during drilling and servicing operations, such cellars shall be kept covered, free from water, oil drilling fluids, rubbish, debris, and other substances; (3037-5/90)
- (c) All multiwell cellars exceeding three (3) feet in depth and twenty-five (25) feet in length shall have two (2) separate means of exit or entrance. If the cellar exceeds two hundred (200) feet in length, a third means of entrance and exit shall be provided. The depth of such cellars shall be the vertical distance between the lowest point of the floor of such cellar and the adjacent ground level;
- (d) Multiwell cellars shall have a steel grate or covering with no unobstructed openings in excess of three (3) inches. (2491-7/81)
- 15.20.150 Fence Permit Required. No fence or wall shall be constructed to enclose any oil well site, oil operation site or drilling island site in whole or in part until a permit therefore shall have been issued by the Community Development Department. As a condition of issuing such permit, the Director of Community Development or the Fire Chief may impose thereon any conditions as are necessary in the interest of the public safety, and such fence or wall shall be constructed in accordance with such conditions. These fence, gate and wall standards may be modified subject to the approval of the Division of Oil and Gas and the Fire Chief upon a determination by the Fire Chief that alternate means of restricting access have been provided and that said alternate means are as effective or more effective than these fence standards. The provisions relating to dedication of right-of-way and construction of improvements shall not be applicable to the issuance of such permit. All such enclosures shall be subject to the setback requirements contained in this title. (2491-7/81, 2861-10/86)
- <u>15.20.160 Fences</u>. All oil operation sites, oil heaters and tanks, and idle wells shall be completely enclosed by a chain link fence, masonry wall, or other approved fencing material according to City requirements in combination with all applicable Division of Oil and Gas requirements.
- (a) All chain link fence enclosures shall have a minimum height of six (6) feet, topped with three (3) strands of barbed wire, spaced four (4) inches apart;
- (b) There shall be at least one gated opening for access, placed in a nonhazardous position and said gate(s) shall be kept locked at all times while left unattended by a watchman or serviceman;
- (c) There shall be no opening below the fence greater than four (4) inches:
- (d) Support posts shall be set in concrete and shall be imbedded into the ground to a depth sufficient to maintain the stability of the fence as approved by the Building Division, but in no event less than twelve (12) inches;
- (e) Fencing constructed of individual chain link panels shall be securely latched, pinned or hinged to prevent unauthorized persons from gaining access to such operation or drilling site;
- (f) The chain link fabric shall be eleven (11) gauge galvanized steel and may be coated with vinyl or plastic material;

(g) Posts and rails shall be standard galvanized, welded pipe. Fences constructed after January 1, 1984 shall use pipe of the following outside diameters:

End posts: 2 3/8 Line posts: 1 7/8 Top and 1 3/8 bottom rails:

Movable panels around wells shall use 1 3/38 inch galvanized welded pipe for all frame members.

- (h) All pipe and other ferrous parts, except chain link fabric, shall be galvanized inside and outside.
- (i) Tension rods shall be 3/8 inch round steel bolt stock. Adjustable tighteners shall be turnbuckle or equivalent having a six (6) inch minimum take-up. Tension bars shall have a minimum thickness of 1/4 x 3/4 inch. (2491-7/81, 2708-12/84, 2861-10/86)
- **15.20.165 Temporary Fences.** Except for pulling rigs, all temporary and/or portable oil equipment shall be enclosed for the duration of the operation with temporary fencing to meet the standards contained in this chapter, except for support posts which need not be anchored in more than two locations. (2708-12/84)
- <u>15.20.170 Masonry Wall Specifications</u>. All masonry walls used to enclose in whole or in part any oil well site, oil operation site or drilling island site shall be constructed in accordance with standard engineering practices and shall meet the following specifications:
- (a) The wall shall be of a design compatible with the facilities, buildings and structures on and adjacent to the site;
- (b) The wall shall be at least six (6) feet in height, topped with three (3) strands of barbed wire, spaced four (4) inches apart;
- (c) It shall be constructed in accordance with the provisions of the Huntington Beach Building Code.
- (d) Barbed wire may be excluded from masonry perimeter walls if each individual pumping unit, oil heater, tank, and each piece of other oil operation equipment is protected with a fence that meets the standards of this code. (2491-7/81, 2861-10/86, 3037-5/90)
- **15.20.180 Gate Specifications.** For oil operations and drill sites, all chain link fences and masonry walls shall be equipped with at least one gated section. The gated section shall meet the following specifications: (3037-5/90)
- (a) Each gated section shall be twelve (12) feet wide and be composed of two (2) gates, each of which is six (6) feet wide, or one sliding gate twelve (12) feet wide. The gates shall latch and lock in the center of the twelve (12) foot span, and each gate shall be topped with three (3) strands of barbed wire, spaced four (4) inches apart; (3037-5/90)
- (b) The gates shall be of chain link construction which meets the applicable specifications or of other approved materials which, for safety reasons, shall be at least as secure as chain link fence;
- (c) The gates shall be provided with a combination catch and locking attachment device for a padlock, and shall be kept locked except when being used for access to the site; (3037-5/90)

- (d) Hinges shall be heavy duty malleable iron or steel industrial service type with a 180° swing. Sliding gates must be made of heavy duty malleable iron or steel industrial service type. (2491-7/81, 2861-10/86, 3037-5/90)
- 15.20.190 Operation Of Oil Field Recovery Heaters. All oil field recovery heaters shall have a valid State of California "permit to operate" and shall be equipped with and operated by safety controls which monitor certain essential operating conditions and which shall shut down the boiler and require manual restart when any of the essential conditions vary from prescribed limits. An emergency shutdown switch shall be installed a minimum of fifty (50) feet from the oil field recovery heater and shall be identified as such by a sign with letters not less than three (3) inches high. (2491-7/81)
- **15.20.200 Notification Of Installation.** Prior to the installation and operation of any oil field recovery heater, the person or entity proposing to install and operate such heater shall so notify the Fire Department. All heaters shall be installed and operated in compliance with the applicable provisions of this chapter. (2491-7/81)
- **15.20.210 Installation.** The distance between oil field recovery heaters and residential, commercial, and public assembly buildings shall be as follows:
- (a) Oil-fired recovery heaters: five hundred (500) feet. The distance may be reduced to one hundred (100) feet when the heater is enclosed by a six (6) foot high masonry wall; (3037-5/90)
- (b) Gas-fired recovery heaters: three hundred (300) feet. The distance may be reduced to fifty (50) feet when the heater is enclosed by a six (6) foot high masonry wall; (3037-5/90)
- (c) All oil field recovery heaters shall be separated a minimum of twenty-five (25) feet from any oil storage tank, wellhead or public right-of-way;
- (d) Oil field recovery heaters being operated in a developed area, as defined in this title, shall be completely fenced, including the wellhead, with a six (6) foot high chain link or other approved fence complete with two (2) self-closing gates installed on opposite sides of the enclosure. Steam lines from the heater to the wellhead shall be buried to a depth of one (1) foot or wrapped with a minimum of one (1) inch thick approved pipe insulation. (2491-7/81, 3037-5/90)
- **15.20.220 Soundproofing.** Where an oil field recovery heater is operated within a developed area, the Fire Chief may, in cases of disturbance such as excessive noise or vibration, require the operator to:
- (a) Enclose the heater with a fire-resistant, soundproofing material which shall be maintained in a serviceable condition; or
- (b) In the case of emergency or when it has been determined by the Fire Chief that the noise or vibration is detrimental to the health, safety or welfare of the surrounding neighborhood, the Fire Chief may order the operator to cease operations. (2491-7/81)
- **15.20.225 Pumping Units.** All pumping units located within a developed area shall be operated by electric motors. Electric motors shall be utilized on all other miscellaneous equipment necessary to the oil operation. Power for all electrical equipment shall be from the local electric utility distribution system and shall not be generated on site. (3037-5/90)
- **15.20.230 Muffling Exhaust.** It shall be unlawful for any person, owner or operator to discharge into the open air the exhaust from any steam engine, internal combustion engine, stationary or mounted on wheels, used in connection with the drilling of any well or for use on

any production equipment unless it is equipped with an exhaust muffler, or mufflers or an exhaust muffler box constructed of noncombustible materials sufficient to suppress noise and prevent the escape of obnoxious gases, fumes or ignited carbon or soot. (2491-7/81)

- **15.20.240 Public Nuisance Declared.** The foregoing sections notwithstanding, no person shall conduct any oil operation in a manner that would create a noise, odor, or vibration detrimental to the health, safety or welfare of the surrounding neighborhood or any considerable number of persons. Such operation is hereby declared to constitute a public nuisance. (2491-7/81)
- **15.20.250** Fire Prevention--Sources Of Ignition. All electrical equipment used, installed or maintained within fifty (50) feet of a drilling rig, or within twenty-five (25) feet of any other oil operation shall be installed and maintained in accordance with all applicable State and Municipal regulations.

No boiler, pass-through boiler, steam generator, direct-fired heater, gas or oil-burning device, or other open flame shall be located closer than twenty-five (25) feet to a wellhead or oil storage tank. (2491-7/81)

- <u>15.20.260 Oil Storage Tanks</u>. All tanks used for the storage, production of oil, or the disposal of waste water shall conform to the following:
- (a) <u>A.P.I. Specifications</u>. All tanks shall conform to American Petroleum Institute (A.P.I.) specifications unless other specifications are approved by the Fire Chief.
- (b) <u>Structural Requirements</u>. If, as determined by the Fire Chief, any structure used or operated in connection with any oil operation is structurally unsound to the point of being hazardous, he may order the person in charge of such oil operation to provide licensed civil or structural engineers' analysis pertaining to the adequacy of said structure.
- (c) <u>Dikes and Capacity Requirements</u>. All persons owning, operating or having control of storage tanks, clarifying tanks or tanks used in connection with the production of oil shall construct and maintain dikes around said tanks. Drainage dikes and walls shall be constructed and maintained to meet the standards of the National Fire Protection Association as they presently exist or may hereafter be amended. (2491-7/81)
- 15.20.270 Tank Setbacks. All new tanks, replacement tanks, and permanent structures shall be set back pursuant to the standards of the National Fire Protection Association as they presently exist or may hereafter be amended, but in all cases shall be at least a minimum of twenty-five (25) feet from an ultimate right-of-way as defined in the Huntington Beach Ordinance Code. (3037-5/90)

EXCEPTION: the replacement of existing oil storage tanks which pose a hazard of bursting or of severe leakage or of any other danger to persons or other property, and which cannot meet the required setback limits, may be authorized by the Fire Chief, but in no case may the replacement tank be of a larger capacity, diameter, or height than the existing tank. (2491-7/81, 3037-5/90)

<u>15.20.280 Setbacks--General.</u> With the exception of pumping units, no oil production equipment over forty-two (42) inches high shall be located or relocated within the safety-sight angle at street intersections.

The safety-sight angle shall be triangular and formed by measuring to a point twenty-five (25) feet along the front and exterior side lot lines of a corner lot from the point of intersection of said lines and striking a hypotenuse between the two points, as illustrated in the diagram included herein. (2491-7/81)

15.20.290 Portable Pulling Masts And Gin Poles--Removal Of. All well servicing equipment, including portable pulling masts and gin poles, shall be removed from the leasehold, oil operation site or drill site within seven (7) days after completion of a well servicing operation. (2491-7/81)

15.20.300 Pipelines. Within six (6) months after adoption of this chapter, all pipelines in developed areas, as defined in this title, which are not enclosed within a fence shall be placed underground or covered with materials approved by the Fire Chief. Such covering shall be maintained in a neat, orderly, secure manner. (2491-7/81)

15.20.310 Storage of equipment.

- (a) Developed Areas. In "developed areas," equipment which is not essential to the everyday operation of an oil production, storage, or shipping site shall not be stored upon the site unless the following conditions are met: (3037-5/90)
 - (1) The site is provided with complete perimeter screening which shields the equipment from public view, and (3037-5/90)
 - (2) Such storage is a permitted use in the base zoning of the site, and (3037-5/90)
 - (3) A minimum twenty-five (25) foot clear space is maintained around the perimeter of all active equipment tanks, pumps, and pipelines within the site, and (3037-5/90)
 - (4) Unobstructed fire equipment road access is maintained within one hundred (100) feet of all active equipment, tanks, pumps, and pipelines within the site. (3037-5/90)
- (b) Undeveloped Areas. In "undeveloped areas," equipment which is not essential to the everyday operation of an oil production, storage, or shipping site shall not be stored upon the site unless the following conditions are met: (3037-5/90)
 - (1) The site is completely enclosed by a fence which conforms to the provisions of this code, and (3037-5/90)
 - (2) Such storage is a permitted use in the base zoning of the site, and (3037-5/90)
 - (3) A minimum twenty-five (25) foot clear space is maintained around the perimeter of all active equipment, tanks, pumps, and pipelines within the site, and (3037-5/90)
 - (4) Unobstructed fire equipment road access is maintained within one hundred (100) feet of all active equipment, tanks, pumps, and pipelines within the site. (2491-7/81, 3037-5/90)
- **15.20.320 Plot Plan of Pipeline Locations.** Within six (6) months after adoption of this chapter, each operator shall submit to the Fire Department a plot plan indicating the approximate location of all active onshore pipelines used in his operation which are located off the leasehold, including waste water, and trunk and gathering lines to transport crude oil or petroleum products. (2708-12/84)
- **15.20.350 Emergency Actions.** The Fire Chief may authorize any actions deemed necessary to abate or control hazardous conditions on oil or natural gas operation sites, including the emergency shutdown of all types of wells and equipment.
- **15.20.400 Noise Control.** Chapter 8.40 of the Huntington Beach Municipal Code is adopted and incorporated into this code by reference, and its provisions are enforceable as part of this code in all operations related to oil production, storage, processing and transportation.

Add safety sight map -- look at old code